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12

13   **UNITED STATES DISTRICT COURT**

14   **NORTHERN DISTRICT OF CALIFORNIA**

15   **SAN JOSE**

16

17 OpenTV, Inc., Nagravision, SA, and Nagra   Case No. 5:15-cv-02008-EJD
   France S.A.S.
18   **APPLE INC.'S NOTICE OF MOTION
                     Plaintiffs,   AND MOTION TO DISMISS
19   PLAINTIFFS' COMPLAINT FOR
           v.   FAILURE TO STATE A CLAIM
20   PURSUANT TO FED. R. CIV. P.
   Apple Inc.,   12(b)(6)**
21
                     Defendant.   Date: October 1, 2015
22   Time: 9:00 a.m.
                                                       Judge: Honorable Edward J. Davila
23   Courtroom: 4, 5th Floor

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1 **NOTICE OF MOTION**

2   Defendant Apple Inc. ("Apple") gives notice that on October 1, 2015, at 9:00 a.m., in

3 Courtroom 4, 5th Floor, 280 South 1st Street, San Jose, CA 95113, Apple will and hereby does

4 move under Rule 12(b)(6) of the Federal Rules of Civil Procedure to dismiss the Complaint filed

5 by OpenTV, Inc., Nagravision, S.A., and Nagra France S.A.S. (collectively, "Plaintiffs" or

6 "OpenTV") with respect to all claims of patent infringement of U.S. Patent Nos. 6,148,081 (the

7 "'081 patent," ECF No. 1 at Ex. A) and 7,644,429 (the "'429 patent," ECF No. 1 at Ex. D).

8 **RELIEF SOUGHT**

9   Pursuant to Rule 12(b)(6) of the Federal Rules of Civil Procedure, Apple moves to

10 dismiss OpenTV's claims that Apple infringes the '081 and '429 patents (ECF No. 1, First and

11 Fourth Claims for Relief) for failure to state a claim upon which relief can be granted.

12 **MEMORANDUM OF POINTS AND AUTHORITIES**

13 **I.   INTRODUCTION**

14   The '081 and '429 patents issued in an era when the U.S. Patent and Trademark Office

15 ("PTO") examined patents under the principle that "anything under the sun that is made by man"

16 may be patented. *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1373

17 (Fed. Cir. 1998). This over-inclusive standard for patent eligibility opened the door to a flood of

18 broad patents that "ranged from the somewhat ridiculous to the truly absurd." *Bilski v. Kappos*,

19 561 U.S. 593, 659 (2010) (Breyer, J., concurring).

20   Over the past few years, the Supreme Court has issued several decisions clarifying the

21 scope of subject matter eligible for patent protection.[1] In *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*,

22 the Supreme Court explained that a patent claim is invalid under § 101 of the Patent Act if the

23 claim (1) is directed to an abstract idea and (2) fails to provide an "inventive concept." 134 S. Ct.

24 2347, 2355 (2014). Recognizing this significant change in law, the Federal Circuit and many

25 district courts have applied *Alice* to invalidate a range of patents that lay claim to abstract ideas.

26

27 [1] In *Kroy IP Holdings, LLC v. Safeway, Inc.*, Federal Circuit Judge Bryson, sitting by designation in the Eastern District of Texas, provided a comprehensive review of recent Supreme Court and Federal Circuit cases addressing the issue of patent subject matter eligibility. 2015 WL 3452469,

28 at *4-10 (E.D. Tex. May 29, 2015).

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1   For example, courts in this district invalidated three OpenTV patents within the past seven

2   months for claiming ineligible subject matter. *See OpenTV, Inc. v. Apple Inc.*, 2015 WL

3   1535328, at *7 (N.D. Cal. Apr. 6, 2015) ("*OpenTV I*"); *OpenTV, Inc. v. Netflix Inc.*, 2014 WL

4   7185921, at *7-8 (N.D. Cal. Dec. 16, 2014).

5   Like the three OpenTV patents previously invalidated under § 101, the '081 and '429

6   patents claim subject matter ineligible for patent protection. These patents fail to provide any

7   technological innovation, but attempt to preempt well-known abstract ideas. Both patents claim a

8   method or system for authorizing access to products or information based on certain conditions.

9   The '081 patent is directed to the idea of using a "credential" to determine access rights, and the

10   '429 patent is directed to the idea of "conditional access"—controlling a buyer's access to a

11   product based on information about that buyer. Both of these ideas have existed for ages and

12   both were used in various fields long before OpenTV filed its patents. The claims of the '081 and

13   '429 patents add nothing inventive to these bare ideas—they recite no new technology and define

14   no new hardware, but merely claim the practice of these abstract ideas using conventional

15   television equipment and generic computers. Thus, the claims of the '081 and '429 patents fail

16   the *Alice* test and are invalid as a matter of law.

17   The overbreadth of the '081 and '429 patents is demonstrated by OpenTV's attempt to

18   read them on technologies having nothing to do with what the patents disclose. While the

19   specifications of the '081 and '429 patents describe the use of "credentials" and "conditional

20   access" in *television* broadcast systems, OpenTV now alleges that these patents cover products in

21   an entirely different industry—Apple's popular iTunes software and media marketplace. ECF

22   No. 1 ¶¶ 57 and 84. This is exactly the danger about which the Supreme Court warned—that the

23   issuance of broad, abstract patents "would pre-empt use of [an idea] in all fields, and would

24   effectively grant a monopoly over an abstract idea." *Alice*, 134 S. Ct. at 2354. OpenTV does not,

25   and cannot, own the ideas of "credentials" and "conditional access." Because the '081 and '429

26   patents claim subject matter ineligible for patent protection, they are invalid as a matter of law

27   under 35 U.S.C. § 101.

28

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II.   PROCEDURAL HISTORY

This case is the most recent addition to a larger dispute between OpenTV and Apple. OpenTV filed a complaint against Apple in this district in April 2014 alleging infringement of five patents (*see OpenTV I*, filed Apr. 9, 2014), and filed three patent infringement suits against Apple in May 2014 in the Düsseldorf District Court in Germany.[2] In December 2014, Apple filed counterclaims in *OpenTV I* alleging that OpenTV infringes ten Apple patents, and moved to dismiss one of the OpenTV patents—U.S. Patent No. 5,689,799 (the "'799 patent")—for claiming ineligible subject matter. *See id.* at ECF Nos. 96, 97. On April 6, 2015, the Court granted Apple's motion to dismiss the '799 patent, holding that its claims are invalid as a matter of law. *OpenTV I*, 2015 WL 1535328, at *7. On May 5, 2015, OpenTV filed this case against Apple asserting five new patents, including the '081 and '429 patents. ECF No. 1.

III.   LEGAL STANDARD

A complaint that fails to plead sufficient facts to "state a claim to relief that is plausible on its face" must be dismissed. *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). When a complaint asserts a patent that claims ineligible subject matter, it fails to state a plausible claim for relief and should be dismissed on the pleadings. *See OpenTV I*, 2015 WL 1535328, at *2; *Content Extraction & Transmission LLC v. Wells Fargo Bank*, 776 F.3d 1343, 1349 (Fed. Cir. 2014); *OIP Techs., Inc. v. Amazon.com, Inc.*, 2015 WL 3622181, at *1 (Fed. Cir. June 11, 2015).

There are three well-established exceptions to the scope of patent eligibility under § 101 of the Patent Act: (1) laws of nature, (2) natural phenomena, and (3) abstract ideas. *See Mayo Collaborative Serv. v. Prometheus Labs., Inc*., 132 S. Ct. 1289, 1293 (2012). Allowing patent claims for these subject matters would "tend to impede innovation more than it would tend to promote it," thereby thwarting the primary object of the patent laws. *Id*.

In *Alice*, the Supreme Court articulated a two-step test for determining whether the subject matter of a claim is patent-eligible: (1) determine if the claim is directed to one of the three patent-ineligible exceptions; and (2) if so, determine if the claim elements provide an "inventive

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[2] *See* OpenTV and NagraVision File Patent Suits Against Apple in Germany (May 12, 2014), https://www.nagra.com/media-center/press-releases/opentv-and-nagravision-file-patent-suits-against-apple-germany (last visited June 23, 2015).

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1   concept … sufficient to ensure that the patent in practice amounts to significantly more" than the

2   patent-ineligible subject. 134 S. Ct. at 2355. Automating "well-understood, routine,

3   conventional activities previously known to the industry" through the use of computers does not

4   qualify as an "inventive concept." *Id.* at 2359 (citations and quotations omitted).

5   Patent eligibility is a "threshold inquiry" and a question of law. *In re Bilski*, 545 F.3d 943,

6   950 (Fed. Cir. 2008). Courts routinely resolve patent-eligibility questions early in the litigation

7   through motions on the pleadings. *See, e.g.*, *OpenTV I*, 2015 WL 1535328, at *2.[3] "Addressing

8   35 U.S.C. § 101 at the outset not only conserves scarce judicial resources and spares litigants the

9   staggering costs associated with discovery and protracted claim construction litigation, it also

10   works to stem the tide of vexatious suits brought by the owners of vague and overbroad business

11   method patents." *OIP Techs.*, 2015 WL 3622181, at *4 (Mayer, J., concurring); *see also Eclipse*

12   *IP*, 2014 WL 4407592, at *6 (identifying "clear advantages" of addressing patent eligibility early

13   in the case). The '081 and '429 patents fail the *Alice* test and are invalid as a matter of law.

14   **IV.   ARGUMENT**

15   **A.   The '081 Patent Is Invalid for Claiming Ineligible Subject Matter**

16   **1.   Overview of the '081 Patent**

17   The '081 patent discloses an interactive television system that uses electronic

18   "credentials" to identify program access rights. *See* '081 patent 2:35-49. Each interactive

19   television application has defined access rights, such as permission to execute certain program

20   modules, control other applications, use system resources, or access restricted data. *Id.* 2:35-40.

21   The disclosed system assigns to each application an electronic "credential" that identifies the

22

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23   [3] *See also Internet Patents Corp. v. Active Network, Inc.*, 2015 WL 3852975, at *5 (Fed. Cir.
     June 23, 2015); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 717 (Fed. Cir. 2014); *buySAFE,*
24   *Inc. v. Google, Inc.*, 765 F.3d 1350, 1352 (Fed. Cir. 2014); *Shortridge v. Found. Constr. Payroll*
     Serv., 2015 WL 1739256, at *14 (N.D. Cal. Apr. 14, 2015); *Cogent Med., Inc. v. Elsevier, Inc.*,
25   2014 WL 4966326, at *3 (N.D. Cal. Sept. 30, 2014); *Open Text S.A. v. Alfresco Software Ltd.*,
     2014 WL 4684429, at *3 (N.D. Cal. Sept. 19, 2014); *Eclipse IP LLC v. McKinley Equip. Corp.*,
26   2014 WL 4407592, at *12 (C.D. Cal. Sept. 4, 2014); *Tuxis Techs., LLC v. Amazon.com, Inc.*,
     2014 WL 4382446, at *6 (D. Del. Sept. 3, 2014); *Loyalty Conversion Sys. Corp. v. Am. Airlines,*
27   *Inc.*, 2014 WL 4364848, at *4-5 (E.D. Tex. Sept. 2, 2014); *Gametek LLC v. Zynga, Inc.*, 2014
     WL 1665090, at *3 (N.D. Cal. Apr. 25, 2014); *Cardpool, Inc. v. Plastic Jungle, Inc.*, 2013 WL
28   245026, at *4 (N.D. Cal. Jan. 22, 2013).

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1   application's access rights. *Id*. at 2:47-57.[4] For example, an interactive shopping application may

2   need access to private data, such as credit card information, stored on a user's television set-top

3   box to complete a purchase; that application is granted access to the restricted data only if its

4   "credential" indicates that it has permission to access credit card data. *See id*. 3:17-24, 9:10-15.

5   Claim 1 of the '081 patent recites a method for controlling functions of interactive

6   television applications through the use of a "credential":

7   1. A method for controlling functions of interactive television applications
             in an interactive television system, the method comprising:

8   [a] loading in said interactive television system an interactive television
             application having a credential associated therewith, said credential
9   including information identifying one or more functions;

10   [b] verifying said credential;

11   [c] when said interactive television application attempts to perform said
             one or more functions, allowing said interactive television application to
             perform said one or more functions if said information indicates permission
12   to perform said one or more functions.

13   '081 patent at claim 1. Step [a] loads an "interactive television application" with its "credential";

14   step [b] verifies the "credential"; and step [c] uses permission information indicated by the

15   "credential" to determine whether the application is allowed to perform certain functions. *See id*.

16   Apparatus claims 10, 20, and 23 recite the same process claimed by claim 1, but in system

17   claim form. *See id*. at claims 10, 20, and 23. Claim 10 is representative:[5]

18   10. A device in an interactive television system for controlling functions
             attempted by an interactive television application, comprising:
19
             [a] a receiver configured to receive a broadcast interactive television signal
20   containing said interactive television application, said interactive television
             application having a credential associated therewith;

21   [b] a data storage device for storing said interactive television application
             and said credential;
22
             [c] a control unit configured to verify said credential, said control unit
23   being further configured to allow said interactive television application to
             perform a function if said credential is valid and to prevent said interactive
24   television application from performing said function if said credential is
             not valid.

25

26   _____
     [4] The '081 patent describes "credentials" as "sets of data which can be used to identify and verify
     the privileges and limitations of particular [application] modules." '081 patent at 4:47-49.

27   [5] In evaluating § 101 motions, courts routinely group claims in situations where "addressing each
     claim of the asserted patents was unnecessary." *Content Extraction*, 776 F.3d at 1348-49

28   (affirming invalidation of 242 claims based on two representative claims).

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1   *Id.* at claim 10. Like claim 1, the system claims recite the transmission of an interactive

2   television application along with its "credential" to a receiver, verification of the "credential," and

3   use of information in the "credential" to determine whether the application is permitted to

4   perform a function. *See id.* Although written as system claims, these claims define components

5   by describing their functions, not their structures. *See id.* (reciting a "receiver configured to," a

6   "data storage device for," and a "control unit configured to" perform certain operations). For

7   example, the "control unit" of claim 10 is described by its function of "verify[ing] said credential

8   … to allow said interactive television application to perform a function if said credential is valid."

9   *Id*. The "receiver" of claim 20 and the "control unit" of claim 23 are "configured to" perform

10   similar functions. *See id.* at claims 20 and 23. Thus, as with method claim 1, the system claims

11   of the '081 patent perform the basic process of using a "credential" to determine the access rights

12   of applications.

13   The dependent claims of the '081 patent add limitations relating to the contents, use, and

14   transmission of the credentials, such as storing the credential (*id.* at claim 2), setting an

15   "expiration date" for the credential (claim 3), defining specific information stored in the

16   credential (claims 4, 5, 14, 15, 17, 21, 22, 25, 26), encrypting the credential (claims 6, 7, 18, 19),

17   transmitting the credential in a broadcast signal (claims 8[6], 9, 16), transmitting the application and

18   credential with regular television programming (claims 12, 13), and using a "set-top box" and

19   "general purpose computer" to store and process the credential (claims 11 and 24).

20   **2.   The Claims of the '081 Patent Are Directed to an Abstract Idea**

21   The claims of the '081 patent are directed to the abstract idea of using a "credential" to

22   determine access rights. For example, step [a] of claim 1 recites loading an interactive television

23   application having a "credential," wherein "said credential includ[es] information identifying one

24   or more functions" that can be performed by the application. '081 patent at claim 1. The

25   remaining steps describe verifying the "credential" and determining whether the application is

26   permitted to perform certain functions based on the information in the "credential." *See id.*

27   [6] Dependent claim 8 also includes a drafting error that makes its meaning indefinite. Claim 8
    refers to "said modules" and "said … carousel" of claim 1, but claim 1 does not include those
28   components. *See* '081 patent at claims 1 and 8.

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1   The basic process claimed by the '081 patent—using a credential to determine rights to

2   perform certain functions—does not solve a technological or mechanical problem. It can be

3   performed without a computer. For example, a grocery store clerk may ask a customer who

4   wishes to purchase alcohol for her driver's license—her "credential"—and use information on the

5   license to verify the customer's identity and age. This corresponds to the steps of "loading" and

6   "verifying" a credential, as recited by steps [a] and [b] of claim 1. *See id.* If the license indicates

7   the customer is 21 or older, the store clerk will allow the customer to purchase alcohol. This

8   corresponds to step [c] of allowing the performance of "one or more functions" if the credential is

9   verified to include "information indicat[ing] permission to perform said one or more functions."

10   *Id.* There is nothing inventive about using a credential in a grocery store, and applying the same

11   process to an interactive television system does not transform it into a patentable invention. *See*

12   *Alice*, 134 S. Ct. at 2358 (applying abstract idea to "a particular technological environment" not

13   patentable); *OIP Techs.*, 2015 WL 3622181, at *3 ("automation of [a] fundamental economic

14   concept" not patentable). Because the process of verifying a credential to determine access rights

15   "can be performed in the human mind or by a human using a pen and paper," the idea underlying

16   that process is abstract. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed.

17   Cir. 2011); *see also Planet Bingo LLC v. VKGS LLC*, 576 F. App'x 1005, 1007-08 (Fed. Cir.

18   2014) (claims that "can be carried out by a human using pen and paper" are abstract); *Kroy*, 2015

19   WL 3452469, at *13 ("conventional conduct that could be performed by a human being" is

20   abstract).[7]

21   Long before the advent of interactive television systems, people used credentials to

22   determine access rights. Banks verify a customer's credentials before allowing the customer to

23   open an account, withdraw funds, or take out a loan. Movie theaters require a credential

24   establishing a person's age before allowing the person to watch an R-rated movie. The '081

25   patent simply applies this common idea to the field of interactive televisions—it assigns a

26   ───────────────
     [7] The fact that "interactive television applications in an interactive television system" cannot
     physically exist in paper form or in the mind of a person is irrelevant to this analysis. *See*
27   *OpenTV I*, 2015 WL 1535328, at *4 ("The pen-and-paper test does not require described
     electronic components to literally exist on paper: instead, it is an analytical tool to test whether
28   the underlying concept described in the claims is abstract, and thus not patent-eligible.").

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1 "credential" to a television application and uses that "credential" to control its access rights.

2 Acknowledging there is nothing unique about applying the idea of "credentials" to the interactive

3 televisions industry, the '081 patent specification even concedes the claimed "credential system"

4 can be used "in environments other than interactive television." '081 patent 12:50-60. Because

5 the use of credentials is a "long prevalent" practice and a basic "building block of human

6 ingenuity," it cannot be patented. *Alice*, 134 S. Ct. at 2354-56.

7   Many courts have invalidated patents claiming similarly abstract processes. In *Gametek*,

8 Judge Seeborg invalidated a patent claiming a process of "determining the eligibility" of a video

9 game player by verifying the player's account balance—a form of credential checking—before

10 allowing the player to purchase a virtual item in a video game. 2014 WL 1665090, at *1, 7, 11-

11 15. In *Planet Bingo*, the Federal Circuit invalidated a patent directed to managing a bingo game

12 by checking "a player identifier and a control number"—yet another form of credential—before

13 allowing the player to play multiple bingo games. 576 F. App'x at 1007-09. In *CyberSource*, the

14 Federal Circuit invalidated a patent directed to a method of using information in credit card

15 transaction histories—a form of "credential" associated with a credit card—to detect fraud in

16 internet commerce. 654 F.3d 1366-69. Each of these cases involves a process of checking

17 certain information in order to determine access rights. Like the claims invalidated in *Gametek*,

18 *Planet Bingo*, and *CyberSource*, the '081 patent claims a fundamental concept and is thus

19 directed to an abstract idea.

20   The analysis of method claim 1 applies with equal force to the system claims of the '081

21 patent. Representative claim 10 recites claim elements written functionally as being "configured

22 to" perform a set of steps:

23   • the "receiver" performs the step of "loading" a credential similar to step [a] of claim 1;

24   • the "data storage device" performs the step of "storing" credential information;

25   • the "control unit" performs the steps of "verifying" the credential and "allowing"

26   certain functions to proceed if the credential is verified, as recited in steps [b] and [c]

27   of claim 1.

28 *See* '081 patent at claim 10. Indeed, claim 10 does not actually define the structure of any

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1 specific hardware. Instead, its elements are drafted to cover functionalities that mirror the steps

2 required by the method claims of the '081 patent. *See id.*[8] Similarly, system claims 20 and 23

3 recite components that perform the steps of the method claims. *See id.* claim 20 ("a receiver

4 configured to … execute said interactive television application … if said application has a valid

5 credential"); claim 23 ("a memory for storing an application and a credential associated with [it]"

6 and "a control unit configured to execute said application, wherein said control unit is configured

7 to verify …"). Thus, each of the independent system claims—claims 10, 20, and 23—is directed

8 to the same abstract idea of using a credential to determine access rights.

9   When a system claim recites components used to perform the steps of an abstract method

10 claim, courts have consistently found that the patentability of the system claim rises or falls with

11 the method claim. *See Alice*, 134 S. Ct. at 2360 (invalidating system claims because "the system

12 claims are no different from the method claims in substance"); *Accenture Global Servs. v.*

13 *Guidewire Software, Inc.*, 728 F.3d 1336, 1344 (Fed. Cir. 2013) (invalidating system claim after

14 finding method claim unpatentable because both claims "require performance of the same basic

15 process"); *Planet Bingo*, 576 F. App'x at 1007 ("[W]e agree with the district court that there is no

16 meaningful distinction between the method and system claims …"). Likewise, there is no

17 meaningful difference between method claim 1 and system claims 10, 20, and 23.

18   The dependent claims add insignificant limitations relating to the contents of credentials,

19 data transmission, and the use of known hardware components. None of these limitations alter

20 the fundamental idea claimed by the independent claims. For example, dependent claim 2

21 requires storing information from a credential—just like a store clerk may log customer names in

22 a record book. *See* '081 patent at claim 2. Claim 3 requires checking the "expiration date" of a

23 credential—just like a police officer may check whether a driver's license has expired. *See id.* at

24 claim 3. Several dependent claims define different pieces of information that could be stored in

25 the credential—just like a passport may contain the holder's name, address, place of birth, and

---

26 [8] Claim 1 does not recite a step of storing a "credential," and that step is recited by dependent
   claim 2. *See* '081 patent at claims 1 and 2. The idea of storing data has long been held to be
27 unpatentably abstract. *See Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 F. App'x 988,
   990-92 (Fed. Cir. 2014) (invalidating claims directed at "organize, store, and transmit
28 information").

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country of citizenship. *See id.* at claims 4, 5, 14, 15, 17, 21, 22, 25, and 26. Other claims recite

ways of protecting information in the credential (s*ee id.* at claims 6, 7, 18, and 19), ways of

transmitting data (claims 8, 9, 12, 13, and 16), and the use of known hardware components

(claims 11 and 24). Because these "dependent claims recite only slight variations of the

independent claims," they do not alter the underlying abstract idea of using a credential to

determine access rights. *See Planet Bingo*, 576 F. App'x at 1007. Accordingly, all claims of the

'081 Patent are directed to an abstract idea and therefore fail step 1 of the *Alice* test.

3.   The Claims of the '081 Patent Fail to Recite an "Inventive Concept"

a.   Method Claim 1 Adds Nothing New to a Well-Known Idea

"[T]he prohibition against patenting abstract ideas cannot be circumvented by attempting

to limit the use of the idea to a particular technological environment." *Alice*, 134 S. Ct. at 2358.

Claim 1 does exactly that—it applies the idea of using "credentials" to "an interactive television

system" without adding anything inventive. *See* '081 patent at claim 1. As many courts have

found, applying an abstract idea to a particular field does not confer patent eligibility. *See, e.g.*,

Alice, 134 S. Ct. at 2360 (affirming invalidation of claims that apply an economic concept to a

computer environment); *Bancorp Servs., LLC v. Sun Life Assurance Co.*, 687 F.3d 1266, 1280

(Fed. Cir. 2012) ("limiting an abstract idea to one field of use" does not transform the idea into a

patentable invention); *Gametek*, 2014 WL 1665090, at *24-25 (applying an abstract idea to

"video games" does not provide an inventive concept). For the same reason, applying the idea of

using "credentials" to interactive television systems does not add an inventive concept.

When conducting the second step of the *Alice* analysis, courts often look to the machine-

or-transformation test as a "useful clue." *Ultramercial*, 772 F.3d at 716. Under the machine-or-

transformation test, a claimed method may be patent-eligible if: "(1) it is tied to a particular

machine or apparatus, or (2) it transforms a particular article into a different state or thing." *Id*.

(citations omitted). Here, claim 1 fails both prongs of the test. Although the preamble of claim 1

states that the claimed steps are carried out "in an interactive television system," nothing in the

body of the claim defines any particular machine or hardware. *See* '081 patent at claim 1.

Indeed, the specification acknowledges that the disclosed process may be carried out "in

10

1   environments other than interactive television." *Id*. at 12:50-60. Moreover, claim 1 recites only

2   information processing steps, none of which transform any object. *See CyberSource*, 654 F.3d at

3   1370 ("The mere collection and organization of data … is insufficient to meet the transformation

4   prong of the test."). Accordingly, claim 1 fails the machine-or-transformation test because it is

5   not tied to a particular machine and does not transform an article.

6   Courts have consistently invalidated patents claiming processes of manipulating

7   information that are untethered to specific hardware. In *DealerTrack, Inc. v. Huber*, the Federal

8   Circuit invalidated claims covering a process for selectively forwarding data because the claims

9   are not "tied to a particular machine." 674 F.3d 1315, 1330-34 (Fed. Cir. 2012). In *Digitech*

10   *Image Techs., LLC v. Elecs. for Imaging, Inc.*, the Federal Circuit invalidated a method claim that

11   "describes a process of organizing information … and is not tied to a specific structure or

12   machine." 758 F.3d 1344, 1350 (Fed. Cir. 2014). In *OpenTV I*, Judge Gilliam invalidated

13   OpenTV's claims reciting the manipulation of information because the claims "do[] not go

14   beyond the 'routine or conventional use' of existing electronic components." 2015 WL 1535328,

15   at *6. The same analysis applies here—claim 1 recites steps of organizing and manipulating

16   information without any tie to a specific machine. Thus, claim 1 lacks an inventive concept and

17   is unpatentable under 35 U.S.C. § 101.

18   b.   System Claims 10, 20 and 23 Rely on Conventional Technology
                        and Add Nothing New to the Claimed Abstract Idea

19

20   Claims 10, 20, and 23 are directed to the same abstract idea as method claim 1, but are

21   drafted in system claim form using functional language to describe their claim elements. *See*

22   '081 patent at claims 10, 20, 23. Claim 10 recites three components: a "receiver," a "data storage

23   device," and a "control unit"; claim 20 recites a "broadcast station" and a "receiver"; and claim

24   23 recites a "memory" and a "control unit." *Id*. Because these components are based on

25   conventional technology, they do not supply the inventive concept necessary to transform the use

26   of credentials into a patentable invention. *See Alice*, 134 S. Ct. at 2359 ("well-understood,

27   routine, conventional activities" not sufficient to add an inventive concept); *McRO, Inc. v. Sony*

28   *Computer Entm't Am., LLC*, 55 F. Supp. 3d 1214, 1230 (C.D. Cal. 2014) (abstract claims "drafted

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1   to give the impression of tangibility" still invalid).

2   First, a "receiver" is described by the '081 patent as any device that can receive an "audio-

3   video-interactive signal" via a broadcast channel (e.g., through a satellite transmission) or a non-

4   broadcast channel (e.g., through a modem). *See* '081 patent 4:7-20. The patent does not claim to

5   have invented a receiver, nor does it disclose a new receiver design. To the contrary, the patent

6   acknowledges that receivers were conventionally used in the television industry. *See id.* at 1:30-

7   57. Moreover, the claims do not define any specific structure for a "receiver," but only describe

8   its functionality. *See id.* at claim 20 ("a receiver ***configured to receive*** said broadcast interactive

9   television signal, ***to extract*** said interactive television application from said broadcast signal and

10   ***to execute*** said interactive television application …") (emphasis added). Because the '081 patent

11   neither discloses, nor claims, anything nonconventional about its "receiver" element, this

12   limitation fails to add inventive concept. *See Accenture*, 728 F.3d at 1338 (finding a "component

13   [that] transmits and receives data to/from the data component" not sufficiently inventive);

14   *OpenTV I*, 2015 WL 1535328, at *6 (invalidating system claims reciting "reception component"

15   described in the specification as a "conventional television receiver").

16   Second, the claims also do not recite anything inventive with the "data storage device"

17   (claim 10) and "memory" (claim 23) elements. Courts have repeatedly held that adding a data

18   storage/memory component to an abstract idea does not save the claim from patent ineligibility.

19   *See Alice*, 134 S. Ct. at 2360 (invalidating claims reciting a "data storage unit" for lacking an

20   inventive concept); *Planet Bingo*, 576 F. App'x at 1008 (invalidating claim reciting a computer

21   "memory" component); *Accenture*, 728 F.3d at 1338 (invalidating claims reciting a "data

22   component that stores, retrieves and manipulates data").

23   Third, the "control unit" recited by claims 10 and 23 is similarly non-inventive. The

24   specification describes a "control unit" as any generic computing device. *See* '081 patent at 6:4-6

25   ("control unit may include a microprocessor, microcontroller, digital signal processor (DSP), or

26   some other type of software instruction processing device"). By disclosing multiple types of

27   control units—none of which is new or unconventional—the '081 patent confirms that the

28   structure of the "control unit" is not integral to the claimed invention. *See Bancorp*, 687 F.3d at

12

1   1278 (finding abstract idea unpatentable because the recited hardware is not "integral to the

2   claimed invention"). Indeed, dependent claim 24 makes clear that a "control unit" can simply be

3   "a general-purpose computer." '081 patent at claims 23 and 24. As other courts have found,

4   "[t]he addition of a conventional element like a generic computer to an abstract idea does not add

5   an 'inventive feature' to the abstract idea." *Cogent Med.*, 2014 WL 4966326, at *4; *see also*

6   *Netflix*, 2014 WL 7185921, at *7 ("mere use of general purpose computers … does not suffice").

7   Fourth, the "broadcast station" recited by claim 20 is again a generic component described

8   by its intended function—"***configured to transmit*** a broadcast signal containing an interactive

9   television application." '081 patent at claim 20 (emphasis added). The patent does not disclose a

10   new broadcast station design, and it acknowledges that broadcast stations for cable and satellite

11   television transmissions were known and conventional. *See id.* at 1:30-40. The inclusion of a

12   known data transmission device is insufficient to supply an inventive concept under the *Alice* test.

13   *See Accenture*, 728 F.3d at 1338 (invalidating a claim reciting a "component [that] transmits and

14   receives data to/from the data component"); *OpenTV I*, 2015 WL 1535328, at *1 (invalidating

15   another OpenTV patent claiming a system comprising "a provider component for ***broadcasting***

16   an application identifier to at least one reception component") (emphasis added).

17   Finally, the combination of elements recited by the system claims also fails to supply an

18   inventive concept. In *Planet Bingo*, the Federal Circuit invalidated a patent claiming a "central

19   processing unit," a "memory," and a "program" because the recited combination is devoid of any

20   inventive feature. 576 F. App'x at 1008. The same analysis applies here—the claimed

21   "receiver," "data storage device," "control unit," and "broadcast station" are all basic components

22   found in conventional cable and satellite television systems. *See, e.g.*, '081 patent at 1:30-41.

23   There is nothing unique and inventive about putting these known components together.

24   To provide an inventive concept, the claimed system must do more than perform

25   "conventional computer activities." *OIP Techs.*, 2015 WL 3622181, at *3. As the Court in

26   *OpenTV I* found, "the 'broadcasting,' 'receiving,' 'storing,' 'assembling,' 'associating,' and

27   'transmitting' functions performed by [system] components boil down to electronic

28   communication and recordkeeping, two of the 'most basic functions of' generic computer

13

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1   technology." *OpenTV I*, 2015 WL 1535328, at *6. Similarly, the independent system claims of

2   the '081 patent recite only conventional hardware components that execute programs and perform

3   routine functions like "receiving," "storing," "verify[ing]," "transmit[ting]," and "extract[ing]"

4   data. *See* '081 patent at claims 10, 20, and 23. These claim elements do not contain the required

5   inventive concept necessary to save the '081 patent from patent ineligibility under the *Alice* test.

    c.   The Dependents Claims Add Nothing Inventive to the Independent
6   Claims

7

8   None of the dependent claims add any innovation that transforms the claimed abstract idea

9   into a patentable invention. Claim 2 requires the storage of a valid credential, which is not

10   inventive for the same reason that the storage elements of claims 10 and 20 are not inventive. *See*

11   '081 patent at claims 2, 10, and 23; *Alice*, 134 S. Ct. at 2360 (finding "data storage unit" to lack

12   an inventive concept). Claim 3 requires "determining whether [the credential's] expiration date

13   has passed." *Id.* at claim 3. This is not an invention—driver's licenses, passports, and other

14   forms of credentials have long included expiration dates. Other dependent claims identify

15   additional pieces of information that can be included in the credential. *See id*. at claims 4, 5, 14,

16   15, 17, 21, 22, 25, and 26. For example, certain claims require the credential to include a

17   "producer ID" (identifying the issuer of the credential) and "application ID" (identifying the

18   application holding the credential). *See id.* at claims 4, 21, and 22. This is analogous to having a

19   driver's license identify its issuing authority (e.g., California DMV) and holder (e.g., name).

20   Other dependent claims recite limitations relating to the encryption and authentication of

21   the credential. *See id*. at claims 6, 7, 18, 19. The '081 patent does not disclose any new

22   encryption technology, but relies on the use of industry-standard protocols like "RSA (Rivest,

23   Shamir & Adleman) and DES (Data Encryption Standard)." *Id.* at 10:37-49. Using existing,

24   industry-standard encryption techniques to protect data transmission is not an inventive concept.

25   Still other dependent claims recite limitations relating to ways of transmitting the

26   television programming. *See id*. at claims 8, 9, 12, 13, and 16. None of these claims recite any

27   unconventional transmission technology or describe any new hardware. *See id*. The remaining

28   dependent claims recite components acknowledged by the patent to be known and conventional.

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1   *See id.* at claim 11 (claiming a "set-top box") and claim 24 (claiming a "general-purpose

2   computer"); 1:42-47; 6:12-16; 12:52-55. Because the dependent claims of the '081 patent fail to

3   add any inventive concept, they fail the *Alice* test and are invalid under § 101.

4   **B.**   **The '429 Patent Is Invalid for Claiming Ineligible Subject Matter**

5   **1.**   **Overview of the '429 Patent**

6   Similar to the '081 patent, the '429 patent claims a system that uses information to control

7   access rights. The '429 patent discloses controlling subscribers' access to satellite television

8   content with a "conditional access system"—a system that conditions a person's access to

9   products or information based on certain information about that person. *See* '429 patent at 1:13-

10   16; Abstract. The disclosed system includes a receiver for receiving and decoding television

11   signals (*id.* at 3:39-52), a Subscriber Management System ("SMS") for storing subscriber data

12   (*id.* at 7:43-63), a Subscriber Authorization System ("SAS") for generating authorization

13   messages (*id.* at 8:35-9:27), and a communications server connected to the receiver via a direct

14   link (*id.* at 15:19-65, 16:50-60) for facilitating communications between the SAS and the

15   subscriber's receiver. When a subscriber's receiver requests access to certain television content,

16   the "conditional access system" verifies subscriber information stored at the SMS and sends an

17   "entitlement Management Message (EMM)" to the receiver to unlock the otherwise encrypted

18   television signal. *See, e.g.*, *id.* at 14:23-45. In summary, the disclosed system grants or denies

19   access to television content based on subscription information stored for each subscriber.

20   The '429 patent recites one independent claim (claim 1, included below) and five

21   dependent claims (claims 2-6):

22   1. A conditional access system for affording conditional access to
      subscribers, comprising:

23   *[a]* a receiver for a subscriber;

24   *[b]* a subscriber management system for at least storing subscription
      information of said subscriber;

25   *[c]* a subscriber authorization system coupled to the subscriber
      management system;

26

27   *[d]* a communications server, wherein said communications server is
      connected directly to the subscriber authorization system without passing
      through the subscriber management system; and

28   *[e]* a direct link for connecting the receiver with the communications

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server, wherein the subscriber management system sends a subset of the subscriber information to said subscriber authorization system, wherein the subset of the subscriber information comprises subscriber access rights,

[f] wherein said subscriber authorization system is adapted to:

generate entitlement management messages using the subset of the subscriber information, in response to a command received from said receiver via said communications server, and wherein said entitlement management messages are sent back to said receiver via the direct link; and

renew the subscriber's access rights automatically, wherein the subscriber authorization system stores the subset of subscriber information received from the subscriber management system for generating renewal messages.

'429 patent, claim 1. Claim 1 recites a "conditional access system" for (1) maintaining a record on a buyer's purchase (i.e., "storing subscription information"); (2) receiving a request from a buyer for access to a product (i.e., receiving "a command … from said receiver via said communications server"); (3) generating a key granting access depending on the buyer's purchase record (i.e., "generate entitlement management messages using the subset of the subscriber information"); and (4) allowing access via the key for the period covered by the purchase (i.e., "renew[ing] the subscriber's access rights automatically"). *See id*. A subscriber is granted access to a product only if information stored at the conditional access system indicates the subscriber currently holds a valid subscription. *See id*.

Dependent claims 2-6 add certain limitations to the "conditional access system" recited by claim 1. Claim 2 requires the system to include a subscriber "receiver/decoder" that is connected to the SAS communications server "via a modem and a telephone link," and claim 3 recites the transmission of data through a satellite transponder. *Id*. at claims 2-3. Claim 4 recites components of the subscriber authorization system that are implemented on generic computer hardware and defined only by their intended functions. *See id.* at claim 4 (reciting "an order centralized server … for receiving commands," "an authorization server … for identifying and validating a subscriber," and "a message generator … for generating entitlement management messages"). Claim 5 requires the SMS to notify the SAS when the subscriber's data changes, and claim 6 specifies the types of commands available in the conditional access system. *See id.* at claims 5 and 6.

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1   **2.   The Claims of the '429 Patent Are Directed to an Abstract Idea**

2   Claim 1 recites a "conditional access system for affording conditional access to

3   subscribers." *Id.* at claim 1. Because claim 1 is the only independent claim of the '429 patent, all

4   claims are, by definition, directed to the abstract idea of conditional access—controlling a buyer's

5   access to a product based on information about that buyer. *See id.* at claims 1-6.

6   With or without computers, people have long practiced the idea of conditioning a buyer's

7   access to a product based on information about that buyer. For example, a hotel may maintain a

8   logbook of guest reservations, including the name of each person who made a reservation and the

9   length of each reservation. When a guest checks into a hotel, a clerk will check the hotel's

10   logbook to determine whether the guest has a reservation and the length of that reservation. If a

11   valid reservation exists, the clerk will provide the guest a key for accessing her hotel room. The

12   hotel will grant the guest continuing access to her room until her reservation ends. As another

13   example, an operator at a ski resort will condition access to the ski lift based on information about

14   each skier. A skier who bought a half-day ticket will be granted access only for the purchased

15   period, whereas another skier who bought a season ticket will be granted access for the entire

16   season. In deciding whether to grant access in the above scenarios, a person will perform a

17   process similar to that claimed by the '429 patent. The concept of conditional access claimed by

18   the '429 patent is a basic tool in the "storehouse of knowledge" that is "free to all … and reserved

19   exclusively to none." *Bilski*, 561 U.S. at 602 (citing *Funk Bros. Seed Co. v. Kalo Inoculant Co.*,

20   333 U.S. 127, 130 (1948)).

21   As with the '081 patent, the idea underlying the claims of the '429 patent is analogous to

22   the abstract ideas several courts have recently held patent-ineligible. In *Ultramercial*, the Federal

23   Circuit invalidated claims directed at a process of granting access to media content in exchange

24   for watching an advertisement. 772 F.3d at 715-16. The idea underlying claim 1 of the '429

25   patent (i.e., conditional access to media based on a user's subscription information) closely

26   parallels the idea found to be unpatentably abstract in *Ultramercial* (i.e., conditional access to

27   media based on whether a user watched an advertisement). *See id.* Similarly, in *Alice*, the

28   Supreme Court invalidated a patent claiming an intermediary system for authorizing transactions

1   conditioned on whether the parties have sufficient funds in "shadow" accounts. *See* 134 S. Ct. at

2   2356-57. Most recently, the Court in *Jericho Sys. v. Axiomatic, Inc.* invalidated a patent directed

3   at the concept "that people who meet certain requirements are allowed to do certain things" for

4   claiming an abstract idea. 2015 WL 2165931, at *4 (N.D. Tex. May 7, 2015). In each of these

5   cases, the patent involved a computer-implemented method or system for controlling access based

6   on information about a buyer. The abstract idea claimed by the '429 patent—"affording

7   conditional access to subscribers" based on "subscriber information"—is no less abstract than the

8   ideas at issue in *Ultramercial*, *Alice* and *Jericho*.

9   Drafting the '429 patent claims in system claim form does not alter their abstract nature.

10 As the Federal Circuit explained, "[r]egardless of what statutory category … a claim's language is

11 crafted to literally invoke, [courts] look to the underlying invention for patent-eligibility

12 purposes." *CyberSource*, 654 F.3d at 1374. The Supreme Court in *Alice* invalidated claims that

13 recited a system configured to implement an abstract idea, explaining that the patent eligibility

14 standard should not be interpreted "in ways that make patent eligibility depend simply on the

15 draftsman's art." 134 S. Ct. at 2360 (citations and quotations omitted). Courts have repeatedly

16 found that patents are directed to abstract ideas even when they require the use of computer

17 hardware. *See, e.g.*, *Content Extraction*, 776 F.3d at 1347-48 (claims directed to the abstract idea

18 of "data recognition and storage" even though they require a scanner, and even though "human

19 minds are unable to process and recognize the stream of bits output by a scanner"); *Cyberfone*,

20 558 F. App'x at 992 (claims directed to the abstract idea of "categorical data storage" even when

21 claims require the use of a computer and could not be performed by "a human, unaided by

22 devices"). Here, even though the claims of the '429 patent are "drafted to give the impression of

23 tangibility," they are nevertheless directed to the abstract idea of conditional access and fail the

24 first step of the *Alice* test. *McRO*, 55 F. Supp. 3d at 1230.

25   **3.   The Claims of the '429 Patent Fail to Recite an "Inventive Concept"**

26   a.   Automatic Subscription Renewal Is Not an "Inventive Concept"

27   In *Alice*, the Supreme Court held that automating "well-understood, routine, conventional

28 activities previously known to the industry" through the use of computers does not qualify as an

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1   "inventive concept." 134 S. Ct. at 2359. Claim 1 of the '429 patent lacks an inventive concept

2   for this very reason—it recites a "conditional access system" that automates subscription

3   renewals using only known and conventional equipment. *See* '429 patent at claim 1. The '429

4   patent does not disclose any novel hardware and expressly acknowledges that conditional access

5   systems were well known. *See id*. at 1:33-36. The specification describes the operation of a

6   "known system": using a telephone, a subscriber calls a human operator at a SMS to provide her

7   payment information and identify the content she wishes to purchase; the human operator

8   authorizes the purchase, which causes a SAS to send an EMM to the subscriber's receiver via

9   satellite transmission. *Id.* at 1:39-52.[9] The EMM serves as a key to unlock the otherwise

10   encrypted content on the subscriber's satellite receiver. *See id.* at 2:13-19.

11   The '429 patent does not solve any technological problem of the "known system," but

12   seeks only to automate certain manual steps. It purports to improve conventional, known,

13   conditional access systems by connecting the subscriber's receiver to the SAS with a direct

14   connection so that the subscriber can make purchases without speaking with a human operator.

15   *Id*. at 15:42-51. In one embodiment, the subscriber's receiver communicates with the SAS

16   communications server through a modem connected to a telephone line, and the SAS provides the

17   EMM to the receiver through that modem connection. *Id*. at 15:42-58. According to the

18   specification, the disclosed system can operate in "real time" to generate the necessary

19   authorization without the need to go through a human operator for order placement, and without

20   the need to wait for the EMM to be delivered via satellite transmission. *See id.* at 2:20-31, 3:27-

21   35. By connecting the subscriber's receiver to the SAS, the disclosed system allows for the

22   automatic renewal of subscription purchases at a predetermined period without human

23   intervention. *Id.* at 10:26-37.

24   Consistent with the specification, claim 1 of the '429 patent recites a system that simply

25   automates activities previously performed by humans. Instead of requiring a subscriber to call a

26   human operator to place an order—as described by the specification for a "known system" (*id*. at

27   _____

28   [9] The '429 patent also describes "another known system" in which the "human operator is
     replaced by an automatic voice server." '429 patent at 1:53-56.

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1   1:37-52)—the system of claim 1 is "adapted to" perform the steps of "generat[ing] entitlement

2   management messages using the subset of the subscriber information" stored in the system, and

3   "renew[ing] the subscriber's access rights automatically." *Id.* at claim 1. To achieve this, the

4   system of claim 1 essentially replaces the human operator with a "direct link" connecting the

5   subscriber receiver and the communications server. *See id.* at claim 1, 1:37-52.

6   Replacing a human with a computer to automate subscription renewals is not a

7   technological innovation and cannot satisfy the "inventive concept" requirement of the *Alice* test.

8   In *Kroy,* Judge Bryson of the Federal Circuit explained that automating a customer incentive

9   program does not "improve computer technology" and "add[s] nothing … other than the speed

10 and convenience of basic computer functions." 2015 WL 3452469, at *13, 21. In *OIP Techs.*,

11 the Federal Circuit held that "relying on a computer to perform routine tasks more quickly or

12 more accurately is insufficient to render a claim patent eligible." 2015 WL 3622181, at *3.

13 Courts routinely reject the argument that the automation of known processes previously

14 performed by humans constitutes a technological improvement. *See, e.g.*, *Planet Bingo*, 576 F.

15 App'x at 1007-08 (invalidating claims reciting automating a process that "can be carried out by a

16 human using pen and paper"); *buySAFE*, 765 F.3d at 1354-55 (computer automation of

17 "transaction performance guaranty" not patentable); *Accenture*, 728 F.3d at 1345 (computer

18 automation of insurance process not patentable); *CyberSource*, 654 F.3d at 1375 (computer

19 automation of credit transaction verification not patentable). Claim 1 of the '429 fails the *Alice*

20 test for the same reason. It neither improves the technology of the "known system" described by

21 the specification nor addresses a problem unique to satellite television systems, but only seeks to

22 automate a manual process with conventional computer components and known digital television

23 hardware.[10] Thus, the automated subscription renewal element of claim 1 (element [f]) fails to

24 provide an inventive concept as required by the second step of the *Alice* test.

25

26

27 _____

[10] OpenTV's assertion of the '429 patent against products in an entirely different industry—
28 Apple's iTunes software and media marketplace—is further proof that the '429 patent does not
    address a technical problem unique to satellite television systems. *See* ECF No. 1 ¶ 84.

1   b.   Claim 1 Recites Known Structural Components Performing
                                             Conventional Functions

2

3   The hardware components of claim 1 (elements [a]-[e]) used to perform the claimed

4   automatic renewal process (element [f]) also fail to provide an inventive concept because each

5   component is known and conventional. Claim 1 recites a "receiver," a "subscriber management

6   system," a "subscriber authorization system," a "communications server," and a "direct link."

7   '429 patent at claim 1. But the patent specification admits that these components are not new.

8   *See, e.g.*, *id.* at 1:37-52 (in "one known system," a subscriber can telephone a "Subscriber

9   Management System" which communicates with a "Subscriber Authorization System which has

10 included in it or associated with it a plurality of communications servers"); 5:18-19 ("the

11 invention includes a mostly ***conventional*** digital television system") (emphasis added). The

12 recitation of known components cannot satisfy the second step of the *Alice* test. *See Potter Voice*

13 *Tech., Inc. v. Apple Inc.*, Case No. C 13-1710-CW, ECF No. 423 at 10 (N.D. Cal. June 11, 2015)

14 (invalidating claims under § 101 because "[t]he patent does not introduce any novel hardware"

15 and "the patent itself indicates that [the recited] components are existing devices").

16   First, there is nothing inventive about the "receiver" element. The specification explains

17 that the receiver is a device capable of "receiv[ing]" EMMs and "a compressed MPEG-type

18 signal," "decoding" the signal, "supplying" the signal to a television, "communicat[ing]" with the

19 SAS via a modem, and "reading" a smartcard. '429 patent at 3:39-52. Receiving, decoding,

20 supplying, communicating, and reading data are basic computer functions that do not qualify as

21 inventive concepts. *See Accenture*, 728 F.3d at 1338, 1341 (claims reciting "data component that

22 stores, retrieves and manipulates data" unpatentable for implementing an abstract idea using

23 generic computer functions); *Intellectual Ventures II LLC v. JP Morgan Chase & Co.*, 2015 WL

24 1941331, at *8 (S.D.N.Y. Apr. 28, 2015) (finding abstract nature of patent "not cured by

25 introducing computers to decipher packetized information and implement mathematical

26 formulas"). Moreover, the specification admits that digital television receivers existed before the

27 '429 patent. *See* '429 patent at 2:20-25.

28   Second, there is nothing inventive about the "communications server" element. The '429

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1 patent discloses implementing the communications server using a "DEC Four parallel processor

2 machine"—a commercially available computer then sold by the Digital Equipment Corporation.

3 *See* '429 Patent at 16:51-54.[11] The use of off-the-shelf computer server hardware does not

4 qualify as an inventive concept. *See, e.g.*, *Accenture*, 728 F.3d at 1344-45; *Open Text S.A. v. Box,*

5 *Inc.*, 2015 WL 269036, at *4 (N.D. Cal. Jan. 20, 2015).

6   Third, neither the SAS nor the SMS is inventive. *See* '429 patent at 1:37-52 (admitting

7 that the "known system" includes a SAS and a SMS). The SAS comprises a "mainframe

8 computer" that runs software on a "standard VMS operating system," and the SMS is described

9 as a "database" that "may be physically remote from the SAS." *Id.* at 7:44-49, 8:41-51. The

10 specification does not describe, and the claims do not require, any new and specialized computer

11 hardware for the SAS and SMS. *See id.* Rather, the SAS and SMS are described as generic

12 computers performing conventional functions. *See id.* Claim 1 confirms the generic nature of

13 these components: element [b] recites the "storing" of subscriber information by an SMS; element

14 [e] recites that the SMS "sends" subscriber access rights information to the SAS; and, element [f]

15 recites that, in response to a command "received" from a subscriber, the SAS "generates" EMMs

16 for the subscriber's receiver, and renews the subscriber's access rights by "stor[ing]" subscriber

17 information and "generating" renewal messages. *See id.* at claim 1. Storing, sending, and

18 generating data are common functions any computer can perform. *See, e.g.*, *DealerTrack*, 674

19 F.3d at 1333 (storing data in "database" and selectively forwarding data are generic computer

20 functions); *Accenture*, 728 F.3d 1336, 1338, 1341 (finding "client component [that] transmits and

21 receives data to/from the data component" to be generic computer functions); *Jericho*, 2015 WL

22 2165931, at *4 (invalidating a patent that recited "receiving a user request," "generating" a rule,

23 and "evaluating" the user request to "determine whether the user is authorized"); *Intellectual*

24

25 [11] The '429 patent specification admits that "in many respects the Communications Servers are **conventional**," but claims that the communications server may diverge from conventional designs

26 when it must handle both data and voice communications. *See* '429 patent at 16:51-59 (emphasis added). The "communications server" recited by claim 1 does not appear to perform any voice

27 communication. *See id.* at claim 1. To the extent that voice communication is required, other portions of the '429 patent specification explain that using a computer to automate voice

28 communication is well known and conventional. *See id.* at 1:53-56 ("In another known system the human operator is replaced by an automatic voice server ….").

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1 *Ventures II*, 2015 WL 1941331, at *14 (finding use of an "access mechanism" for "controlling

2 access to data" to be "nothing more than programming conventional software or hardware to

3 apply rules governing access—a routine, conventional process"). Accordingly, neither the SAS

4 nor the SMS adds an inventive concept to claim 1.

5   The "direct link" element is not inventive either. The '429 patent describes implementing

6 the "direct link" with a "hard-wired connection and/or modemmed [*sic*] connection." '429 patent

7 at 3:11-12; *see also id.* at 2:51-52, 3:34-35. The use of a "hard-wired" or modem-based

8 connection to communicate data over a computer network is "not even arguably inventive."

9 *buySAFE*, 765 F.3d at 1355. Further, where a subscriber uses the "direct link" to contact the

10 SAS, this link does not even need to be a computer connection. In one embodiment, the direct

11 connection between the subscriber and SAS is achieved "by a voice link via a telephone and

12 appropriate telephone line." '429 patent at 15:21-24. As the patent specification acknowledges,

13 replacing human operators with an automated telephone system was known. *See id.* at 1:53-56

14 ("In another known system the human operator is replaced by an automatic voice server so that

15 when the user telephones the SMS he/she hears a voice activated recording …"). Thus, the

16 "direct link" element—either as a computer connection or as a telephone voice connection—does

17 not add an inventive concept.

18   Claim 1 also fails to recite any unconventional use of its hardware elements in

19 combination. For example, claim 1 recites using the claimed system to generate "entitlement

20 management messages" that enable "subscriber's access rights." *Id.* at claim 1. But the

21 specification admits that the use of EMMs is not inventive—in describing existing satellite

22 television systems, the specification acknowledges that "the key element in controlling the user's

23 access to products are so-called Entitlement Management Messages (EMM)" which "are the

24 mechanism by which the encrypted data representative of a product is decrypted for a particular

25 user." *Id.* at 2:13-19. Thus, there is nothing unconventional or inventive about the claimed use of

26 EMMs for renewing subscriber subscriptions.

27   Under *Alice*, a claim directed at an abstract idea is unpatentable without adding

28 "significantly more" to the idea. *Alice*, 134 S. Ct. at 2355. This requirement cannot be satisfied

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1 by "the automation of [a] fundamental economic concept … through the use of generic-computer

2 functions." *OIP Techs.*, 2015 WL 3622181, at *3. Claim 1 fails this requirement by reciting the

3 use of known components in a conventional manner to automate management of "conditional

4 access" in satellite television systems. In *Content Extraction*, the Federal Circuit invalidated a

5 patent that claimed the use of known technology—a computer and a scanner—to automate data

6 extraction from hard copy documents. 776 F.3d at 1347-48. In *TriPlay, Inc. v. WhatsApp Inc.*,

7 the District of Delaware held that the use of "conventional technologies and techniques" were not

8 sufficient to save an abstract patent from invalidation. 2015 WL 1927696, at *2, *14 (D. Del.

9 Apr. 28, 2015). In *Potter Voice Tech.*, the court invalidated claims that implement an abstract

10 idea using components "the patent itself indicates … are existing devices." Case No. C 13-1710-

11 CW, ECF No. 423 at 10. The same rationale applies to the '429 patent: the use of known

12 television devices and generic computer hardware for performing conventional functions does not

13 constitute an inventive concept as required by the second step of the *Alice* test. Thus, claim 1 of

14 the '429 patent fails both steps of the *Alice* test and is invalid as a matter of law.

15   c.   Dependent Claims 2-6 of the '429 Patent Also Lack an "Inventive
                                Concept"

16

17   Dependent claims 2-6 of the '429 patent fail to add any inventive technology to claim 1

18 that would render any of the claims patentable. Claims 2 and 3 recite the use of conventional

19 communications mediums to transmit data. Claim 2 limits the "direct link" element to a "modem

20 and telephone link." *See* '429 patent at claim 2. As explained by the Federal Circuit, the use of a

21 computer network to transmit and receive data is "not even arguably inventive." *buySAFE*, 765

22 F.3d at 1355. Claim 3 recites a satellite transponder for transmitting a message encoded as "a

23 packet of digitized data." *See* '429 patent at claim 3. The '429 patent concedes that satellite

24 transmission is known and conventional. *See id.* at 2:10-12.

25   Claim 4 uses functional language to describe various subcomponents of the SAS: "an

26 order centralized server … for receiving commands … and subscriber information," "an

27 authorization server … for identifying and validating a subscriber in response to an authorization

28 request," and "a message generator … for generating entitlement management messages." *See id.*

24

1 at claim 4.[12] Receiving, identifying, validating, and generating data are generic computer

2 functions and thus do not add an inventive concept. *See, e.g.*, *CyberSource*, 654 F.3d at 1374

3 (invalidating a patent reciting "obtaining information" and using information stored to

4 "determine" if transactions were valid); *Accenture*, 728 F.3d at 1338 (finding "transmit[ting]" and

5 "receiv[ing]" data and generating tasks to be generic computer functions).

6   Claim 5 recites that the SMS of claim 1 "sends subscriber information" to the SAS when

7 changes in the subscriber's data occur. *See* '429 Patent at claim 5. As with independent claim 1,

8 claim 5 describes the automation of an action that previously required human action. *See id.*

9 Automating data updates is an action any computer can perform and thus cannot satisfy the

10 second step of the *Alice* test. *See, e.g.*, *DealerTrack*, 674 F.3d at 1333.

11   Claim 6 specifies the types of commands available in the conditional access system (*see*

12 '429 patent at claim 6), but this claim does not add any new hardware or unconventional

13 technologies that constitute an inventive concept. Moreover, receiving and executing commands

14 are exactly what all computers are programmed to do and therefore are not inventive. *See, e.g.*,

15 *Accenture*, 728 F.3d at 1338, 1341.

16   Thus, dependent claims 2-6 do not add an inventive concept to the abstract idea of

17 conditional access and are invalid as a matter of law.

18 **V.   CONCLUSION**

19   For the foregoing reasons, Apple respectfully requests that the Court dismiss all claims of

20 infringement based on the '081 and '429 patent.

21   Dated: June 26, 2015   O'MELVENY & MYERS LLP

22   By: */s/ Luann L. Simmons*

23   Attorneys for Defendant APPLE INC.

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[12] Claim 4 also recites "a subscriber receiver/decoder operatively connected to the
27 communications server." '429 patent at claim 4. This is not inventive for the same reasons as
stated above for independent claim 1, which already recites "a direct link for connecting the
28 receiver with the communications server." *Id.* at claim 1.

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